REMARKS

This application has been carefully reviewed in light of the Office Action dated June 2, 2005. Claims 1 to 58 and 61 to 65 are in the application, of which Claims 1, 25 to 29, 53 to 58 and 61 to 65 are independent. Reconsideration and further examination are respectfully requested.

Claims 28, 56 and 65 have been allowed.

Applicants thank the Examiner for her indication of allowable subject matter in each of Claims 3 to 12 and 31 to 40. These claims have not been rewritten into independent form, as otherwise suggested by the Examiner, since it is believed that the independent claims from which they depend are also in condition for allowance, as detailed mor fully below.

Claims 1, 2, 15 to 18, 23, 25 to 27, 29, 30, 43 to 46, 51, 53 to 55, 57 to 64 were rejected under 35 U.S.C. § 102(b) over U.S. Patent 6,006,182 (Fakhr); Claims 13, 14, 41 and 42 were rejected under § 103(a) over Fakhr in view of U.S. Patent 6,070,140 (Tran); Claims 19 to 22 and 47 to 50 were rejected over Fakhr in view of U.S. Patent 6,289,140 (Oliver); and Claims 24 and 52 were rejected over Fakhr in view of U.S. Patent 6,463,413 (Applebaum). In response, the substance of Claim 59 has been incorporated into each of the rejected independent claims herein so as to emphasize that the outputted sequence is different from first and second sequences of sub-word unit labels representative of word alternatives. Accordingly, this should be viewed as a traversal of the rejection of Claim 59, as explained more fully below.

The invention concerns a determination of a sequence of sub-word unit labels representative of at least two word alternatives output by a word recognition unit in response to a common input word to be recognized. According to one aspect of the invention herein, an output sequence is determined that is different from a first sequence of sub-word unit labels and is also different from a second sequence of sub-word unit labels which are representative of word alternatives.

In entering its rejection of Claim 59 (at paragraph 11 of the Office Action), the Office Action took the position that Fakhr described an arrangement that determined an output sequence of sub-word unit labels that is different from a first sequence of sub-word unit labels and different from a second sequence of sub-word unit labels and which is representative of at least of two word alternatives. Reliance was placed on lines 1 through 67 of Fakhr's column 4, concerning Fakhr's step of determining a Levenstein distance. Applicants respectfully submit that such reliance is misplaced.

In Applicants's view, although it is true that Fakhr discloses a speech recognition system which generates a plurality of word alternatives, Fakhr processes his word alternatives in ways that differ from processing according to the invention herein. Fakhr's system employs a GAM function to accept or reject the top recognition result output by the speech recognizer, as described commencing at line 64 of column 4. One of the recognition features that is calculated is a weighted Levenstein distance between the word alternatives output by the speech recognizer. As disclosed at lines 32 to 34 of column 4, the Levenstein distance between two word alternatives is defined as the number of substitutions, deletions, or insertions that are required to transform a first phonemic transcription of one word alternative into that of another word alternative.

The purpose of determining the Levenstein distance is therefore to determine whether or not to accept the best sequence of sub-word unit labels output by the speech recognizer. There is absolutely no suggestion of generating a new sequence of labels, and certainly no disclosure or suggestion that an output sequence is determined that is different from first and second sequences of sub-word unit labels representative of word alternatives, as set out in the claim.

Applicants recognize that calculation of a Levenstein distance involves a kind of "editing" in which a first string is transformed into a second string. However, as applied by Fakhr, calculation of a Levenstein distance is a calculation between the top match and each of the following N matches found by the recognizer:

> "Rejection features (5)-(7) describe characteristics of the particular words recognized, and are referred to as word-specific information. The latter of these rejection features, the Levenstein distance, is the distance between the top match and each of the N following matches found by the recognizer. Calculation of the weighted Levenstein distance requires calculation of the Levenstein distance between two phonemic transcriptions. Suitable methods are known for computing the Levenstein distance between two strings ...." (Column 4, lines 7-15.)

Accordingly, even though calculation of Levenstein distance might involve a kind of "editing" which transforms one string into another, Fakhr's calculation of a Levenstein distance only involves word alternatives that have already been provided by the speech recognizer. Accordingly, it is not possible for Fakhr's calculation of a Levenstein distance to result in an output sequence that is different from first and second sequences of sub-word unit labels representative of the word alternatives. That is, because Fakhr calculates a Levenstein distance between its word alternatives, it can only result in word alternatives

that are already included in the known word alternatives, and thus Fakhr's output sequence cannot be different therefrom.

The additional citations to Tran, Oliver, and Applebaum have all been reviewed, but they are not seen to address the foregoing deficiency of Fakhr. As a consequence, it is respectfully submitted that the claims herein define subject matter that is neither anticipated nor would have been obvious, and allowance of the claims is respectfully requested.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office by telephone at (714) 540-8700. All correspondence should be directed to our address given below.

Respectfully submitted,

Attorney for Applicants
Michael K. O'Neill
Registration No.: 32,622

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3800
Facsimile: (212) 218-2200

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